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10/521,798	01/21/2005	Robert J. Lowles	PAT 53966W-2	5057

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BORDEN LADNER GERVAIS LLP
WORLD EXCHANGE PLAZA
100 QUEEN STREET SUITE 1100
OTTAWA, ON K1P 1J9
CANADA

EXAMINER

CARTER III, ROBERT E

ART UNIT	PAPER NUMBER
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2609

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/521,798

Applicant(s)

LOWLES ET AL.

Examiner

Robert E. Carter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01/21/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) ✓
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 11/14/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-7, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawanobori et al. (US Patent # 5,936,668) in view of Windsor et al. (US Patent # 6,512,607).

As for claim 1,

Sawanobori et al. teaches:

A method for indicating an event change (Col. 7, lines 14-18) in a first area (Fig. 10, #17b) of a viewing area of a liquid crystal display (LCD) (Fig. 10), the LCD viewing area

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having a second area (Fig. 10, #17a), surrounded on two sides by said first area, for displaying images.

the method comprising the steps of:

providing control information;

determining said event change from a list of event changes based on said control information;

determining a first drive signal for said event change; and

supplying a first group of pixels in said first area with said first drive signal,

said first group of pixels comprising at least one pixel, thereby controlling a colour

of said first group of pixels with said first drive signal. Sawanobori et al. states in Col. 4,

line 66 – Col. 5, line 4 that the first area is for displaying information related to the image currently being displayed, like the date of image, use of strobe, and number of frames

used, additionally information related to the device itself can be displayed like the

amount of battery. Sawanobori et al. suggests that any other information relating to the

image or the device itself could also be displayed. Fig. 10 shows a specific example of a

frame counter in the first area (17b) which would change with every frame displayed in

the second area. Each new frame displayed is an example of an event change, and

necessitates the first drive signal be set to a certain value corresponding to that frame.

Sawanobori et al. does not teach:

The LCD viewing area having a second area (Fig. 5A, #26), surrounded by said first area.

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Windsor et al. teaches:

A first area (Fig. 5A, #24) of a viewing area of a liquid crystal display (LCD) (Fig. 5A, #20), the LCD viewing area having a second area (Fig. 5A, #26), surrounded by said first area, for displaying images.

Windsor et al. further teaches that the first area can contain a different image or a permanent image from the second area (Col. 4, line 58 – Col.5, line 2).

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the LCD display in Sawanobori et al. by adding two more sides to the first area such that it surrounds the second area as in Windsor et al. to allow more space in the first area to indicate other event changes.

As for claim 2,

Sawanobori et al. in view of Windsor et al. teaches all the limitations of claim 1.

Sawanobori et al. further teaches:

Wherein the step of providing control information comprises the steps of:

inputting said control information to an electronic device (Fig. 6, #15); and

sending a signal with said control information to an LCD drive circuit (Fig. 6, #45) from a

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controlling element (Fig. 6, #20) of an electronic device (Fig. 6) housing said LCD.

As for claim 3,

Sawanobori et al. in view of Windsor et al. teaches all the limitations of claim 1.

Sawanobori et al. further teaches:

Wherein the step of providing control information comprises the steps of:

using a software program with control information resident on an electronic device; and

sending a signal with said control information to an LCD drive circuit (Fig. 6, #45) from a

controlling element (Fig. 6, #20) of an electronic device (Fig. 6) housing said LCD.

While Sawanobori et al. does not explicitly teach the limitation of using a software program with control information resident on an electronic device, the controlling element inherently requires a software program to operate.

As for claim 4,

Sawanobori et al. in view of Windsor et al. teaches all the limitations of claim 1.

Sawanobori et al. further teaches:

A method which comprises the further steps of:

supplying a second drive signal to a second group of pixels in said first

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area, said second group of pixels comprising at least one pixel; and
controlling a colour of said second group of pixels with said second drive signal, thereby
creating a pattern within said first area (Col. 4, line 66 – Col. 5, line 4).

As for claim 5,

Sawanobori et al. in view of Windsor et al. teaches all the limitations of claim 4.

Sawanobori et al. further teaches:

Wherein the colours of said first and second groups of pixels are dynamically controlled based on images displayed in said second area of said viewing area (Col. 7, lines 14-18). Sawanobori et al. states that the first area is for displaying information related to the image currently being displayed, like the date of image, use of strobe, and number of frames used, additionally information related to the device itself can be displayed like the amount of battery. Sawanobori et al. suggests that any other information relating to the image or the device itself could also be displayed. Fig. 10 shows a specific example of a frame counter in the first area (17b) which would change with every frame displayed in the second area. Each new frame displayed is an example of an event change, and necessitates the first drive signal be set to a certain value corresponding to that frame.

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As for claim 6,

Sawanobori et al. in view of Windsor et al. teaches all the limitations of claim 4.

Sawanobori et al. in view of Windsor et al. does not explicitly teach the limitation wherein said control information is provided at the time of manufacturing an electronic device housing the LCD, or selected by a user during operation of the electronic device.

However, the device in Sawanobori et al. does contain a controlling element (Fig. 6, #20) which inherently requires a software program containing control information to operate, and that program would have been provided at the time of manufacturing.

Furthermore, it is well known in the art that a digital camera such as the one disclosed in Sawanobori et al. would have control interfaces to allow the user to input control information. One such control button even appears on the top surface of the device depicted in Fig. 11, although it is not numbered.

As for claim 7,

Sawanobori et al. in view of Windsor et al. teaches all the limitations of claim 1.

Sawanobori et al. further teaches:

Wherein said first drive signal is set to a certain value if an event change has taken place (Col. 7, lines 14-18). Sawanobori et al. states that the first area is for displaying information related to the image currently being displayed, like the date of image, use of strobe, and number of frames used, additionally information related to the device itself

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can be displayed like the amount of battery. Sawanobori et al. suggests that any other information relating to the image or the device itself could also be displayed. Fig. 10 shows a specific example of a frame counter in the first area (17b) which would change with every frame displayed in the second area. Each new frame displayed is an example of an event change, and necessitates the first drive signal be set to a certain value corresponding to that frame.

As for claim 9,

Sawanobori et al. teaches:

An apparatus for controlling a viewing area of a liquid crystal display (LCD) comprising: a liquid crystal display (LCD) (Fig. 10) having a first area (Fig. 10, #17b) for indication of at least one event change and a second area (Fig. 10, #17a), surrounded on two sides by said first area, for displaying images;

a controlling element (Fig. 6, #20) for determining said at least one event change from a set of event changes and for creating control information corresponding to said at least one event change (Col. 7, lines 14-18). Sawanobori et al. states that the first area is for displaying information related to the image currently being displayed, like the date of image, use of strobe, and number of frames used, additionally information related to the device itself can be displayed like the amount of battery. Sawanobori et al. suggests that any other information relating to the image or the device itself could also be

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displayed. Fig. 10 shows a specific example of a frame counter in the first area (17b) which would change with every frame displayed in the second area. Each new frame displayed is an example of an event change, and necessitates the first drive signal be set to a certain value corresponding to that frame; and an LCD driver circuit (Fig. 6, #45) for transmitting signals to said first area based on said control information for indicating said at least one event change.

Sawanobori et al. does not teach:

A liquid crystal display (LCD) having a first area for indication of at least one event change and a second area, surrounded by said first area.

Windsor et al. teaches:

An apparatus for controlling a viewing area of a liquid crystal display (LCD) comprising:
a liquid crystal display (LCD) (Fig. 5A, #20) having a first area (Fig. 5A, #24) for indication of at least one event change and a second area (Fig. 5A, #26), surrounded by said first area, for displaying images;

Windsor et al. further teaches that the first area can contain a different image or a permanent image from the second area (Col. 4, line 58 – Col.5, line 2).

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Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the LCD display in Sawanobori et al. by adding two more sides to the first area such that it surrounds the second area to allow more space in the first area to indicate other event changes.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sawanobori et al. (US Patent # 5,936,668) in view of Windsor et al. (US Patent # 6,512,607) as applied to claim 7 above, and further in view of Denove et al. (US Patent # 5,486,914).

As for claim 8,

Sawanobori et al. in view of Windsor et al. teaches all the limitations of claim 7.

Sawanobori et al. in view of Windsor et al. does not explicitly teach the limitation wherein said event change is selected from group consisting of: message received, urgent message received, new application in use, backlight turned on, and backlight turned off. However, Sawanobori et al. states that the first area is for displaying information related to the image currently being displayed, like the date of image, use of strobe, and number of frames used, additionally information related to the device itself can be displayed like the amount of battery. Sawanobori et al. further suggests that any other information relating to the image or the device itself could also be displayed. One such piece of information that meets these suggested criteria is status of the backlight.

Denove et al. teaches a portable electronic device with an LCD display and a backlight indicator (Col. 10, lines 52-58).

Therefore, at the time of the invention it would have been obvious to one of ordinary skill in the art to modify the LCD display in Sawanobori et al. in view of Windsor et al. to include the backlight indicator of Denove et al. in the first area to detect and display any event change of the backlight to inform the device operator whether the backlight is on or off when the device is being used under bright lighting conditions where the backlight status is not self evident.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

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Gennetten et al. (US Patent # 6,812,907) discloses a display with a dynamic active area surrounded on three sides by an inactive area which changes size based on the required size of the active area to save power.

Koyama et al. (US Patent # 6,469,686) discloses a display with a dynamic active area surrounded by an inactive area which changes size based on the required size of the active area.

Iida et al. (US Patent # 6,236,388) discloses a display with a dynamic active area surrounded by an inactive area which changes size based on the required size of the active area.

Hunter (US Publication # 2003/0,146,897) discloses a computer display with a dynamic active area surrounded by an inactive area which changes size based on the required size of the active area to save power.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert E. Carter whose telephone number is 571-270-3006. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

REC


KENT CHANG
PRIMARY EXAMINER